

WHAT IS CLAIMED IS:

- 5 1. A method of providing a link quality indicator signal for a communication system, the communication system having a local transceiver including a plurality of communication status signals, the method comprising:
- receiving the plurality of communication status signals from the transceiver;
- 10 generating a link quality indicator signal based on the plurality of communication status signals.
2. The method of claim 1, the generation of a link quality indicator further including:
- 15 generating a first aperiodic link quality indicator signal if a first subset of the plurality of communication status signals indicate an operational network channel; and
- generating a second aperiodic link quality indicator signal if the first subset of the plurality of communication status signals indicate an inoperative network channel.
- 20 3. The method of claim 1, the generation of a link quality indicator further including:
- 25 generating a periodic link quality indicator signal if a second subset of the plurality of communication status signals indicate a marginally operational network channel.
4. The method of claim 3, wherein generating a periodic link quality indicator signal further includes determining a period of the periodic link quality indicator signal based on the second subset of the plurality of communication status signals.
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5. The method of claim 3, wherein generating a periodic link quality indicator signal further includes generating a periodic link quality indicator signal with asymmetric high and low periods.
6. A method of providing a link quality indicator signal for a communication system, the communication system having a local transceiver including a plurality of communication status signals, the method comprising:
- (a) generating a link quality indicator signal at a first signal level;
 - (b) generating the link quality indicator signal at a second signal level if an auto-negotiation complete status signal indicates a local transceiver auto-negotiation process is complete;
 - (c) continuing from step (a) if the auto-negotiation complete status signal indicates the local transceiver auto-negotiation process is not complete;
 - (d) continuing from step (b) if a link status signal indicates that a network channel has not been established;
 - (e) generating the link quality indicator signal at the first signal level and continuing from step d if a local receiver status signal indicates that the local transceiver is not functional;
 - (f) generating the link quality indicator signal at the second signal level if the local receiver status signal indicates that the local transceiver is functional;
 - (g) generating the link quality indicator signal at the first signal level for a first period of time and generating a link quality indicator signal at the second signal level for the first period of time if a receive error status signal indicates that the local transceiver has a reception error;

(h) generating the link quality indicator signal at the first signal level for a first period of time and generating the link quality indicator signal at the second signal level for the first period of time if a receive error status signal indicates that the local transceiver has a reception error; and

(i) generating the link quality indicator signal at the first signal level for a second period of time and generating the link quality indicator signal at the second signal level for the second period of time if a MSE status signal indicates that a MSE of the local transceiver exceeds a SNR threshold status signal.

7. The method of claim 6 wherein the first period of time is greater than the second period of time.

8. An apparatus for generating a link quality indicator signal for a communication system, the communication system having a local transceiver including a plurality of communication status signals, the apparatus comprising:

a quality indicator signal generator including quality indicator logic, the quality indicator logic including:

receiving a set of communication status signals from the plurality of communication status signals;

generating a link quality indicator signal based on the set of communication status signals.

9. The apparatus of claim 8, the quality indicator logic further including:

generating a first aperiodic link quality indicator signal if a first subset of the plurality of communication status signals indicate an operational network channel; and

generating a second aperiodic link quality indicator
signal if the first subset of the plurality of
5 communication status signals indicate an inoperative
network channel.

10. The apparatus of claim 8, further comprising a light
emitting diode operably coupled to the link quality signal
10 generator.

11. The apparatus of claim 8, the quality indicator logic
further including:

generating a periodic link quality indicator signal if
15 a second subset of the plurality of communication status
signals indicate a marginally operational network channel.

12. The apparatus of claim 11, wherein the quality indicator
logic further includes determining a period of the periodic
20 link quality indicator signal based on the second subset of
the plurality of communication status signals.

13. The apparatus of claim 11, wherein the quality indicator
logic further includes generating a periodic link quality
25 indicator signal with asymmetric high and low periods.

14. A method of providing a link quality indicator signal for
a communication system, the communication system having a
local transceiver including a plurality of communication
30 status signals, the method comprising:

generating a first aperiodic link quality indicator
signal indicating an inoperative network channel; and

generating a second aperiodic link quality indicator
signal if an auto-negotiation complete status signal and a
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link status signal and a local receiver status signal indicate an operational network channel.

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15. The method of claim 14, wherein the generation of a link quality indicator further includes generating a periodic link quality indicator signal if a receive error status signal indicates a marginally operational network channel.

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16. The method of claim 14, wherein the generation of a link quality indicator further includes generating a periodic link quality indicator signal if a mean square error status signal indicates a marginally operational network channel.

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17. The method of claim 14, wherein the generation of a link quality indicator further includes generating a first periodic link quality indicator signal if a receive error status signal indicates a marginally operational network channel.

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18. The method of claim 17, wherein the generation of a link quality indicator further includes generating a second periodic link quality indicator signal if a mean square error status signal indicates a marginally operational network channel.

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